

WHAT IS CLAIMED IS:

1. A method for fabricating a gas turbine engine combustor, said method comprising:

coupling a venturi to a primary swirler; and

coupling the venturi to a secondary swirler such that a gap is defined between a portion of the venturi and a portion of one of the primary swirler and the secondary swirler.

2. A method in accordance with Claim 1 wherein coupling the venturi to a secondary swirler comprises coupling the venturi to the secondary swirler such the venturi is coupled between the primary and secondary swirlers and such that a slide fit is defined between at least a portion of the venturi and a portion of one of the primary and secondary swirlers.

3. A method in accordance with Claim 1 wherein coupling the venturi to a secondary swirler comprises coupling the venturi to one of the primary swirler and the secondary swirler using at least one of a brazing operation and a welding operation.

4. A method in accordance with Claim 1 wherein one of the primary swirler and the secondary swirler defines a flow passage extending therethrough, said method further comprises forming a plurality of openings extending in flow communication between the flow passage and the gap.

5. A method in accordance with Claim 1 further comprising coating the portion of the venturi defining the gap with a thermal barrier coating.

6. A method in accordance with Claim 1 wherein coupling the venturi to a secondary swirler further comprises coupling the venturi to the secondary swirler such that the venturi extends between the primary and secondary swirlers.

7. A combustor for a gas turbine engine, said combustor comprising:

a venturi; and

a secondary swirler extending circumferentially around said venturi, said secondary swirler coupled to said venturi such that a gap is defined between a portion of said secondary swirler and said venturi.

8. A combustor in accordance with Claim 7 further comprising a primary swirler coupled to said venturi such that said venturi is between said primary and secondary swirlers.

9. A combustor in accordance with Claim 8 wherein at least a portion of said venturi is slidably coupled to a portion of one of said primary and said secondary swirlers.

10. A combustor in accordance with Claim 8 wherein at least a portion of said venturi is coupled to a portion of one of said primary and said secondary swirlers in a slide fit, said slide fit facilitates accommodating thermal growth of at least one of said primary and said secondary swirler with respect to said venturi.

11. A combustor in accordance with Claim 7 wherein said secondary swirler comprises a secondary air passage extending therethrough and a plurality of openings, said openings couple said secondary air passage and said gap in flow communication.

12. A combustor in accordance with Claim 7 wherein said gap is defined between a radially outer surface of said venturi and a radially inner surface of said secondary swirler, said venturi radially outer surface comprises a layer of thermal barrier coating.

13. A combustor in accordance with Claim 7 wherein said gap facilitates reducing an operating temperature of said venturi.

14. A gas turbine engine comprising a combustor comprising at least one annular air swirler and an annular venturi, said annular air swirler coupled to said

venturi such that a gap is defined between a portion of said air swirler and said venturi.

15. A gas turbine engine in accordance with Claim 14 wherein said gap facilitates reducing an operating temperature of said venturi.

16. A gas turbine engine in accordance with Claim 14 wherein at least a portion of said at least one annular air swirler is coupled in a slide fit against said venturi.

17. A gas turbine engine in accordance with Claim 14 wherein said air swirler defines a flow passageway extending therethrough, said at least one air swirler comprises a plurality of openings extending in flow communication between said flow passageway and said gap.

18. A gas turbine engine in accordance with Claim 14 wherein said gap facilitates maintaining an operating temperature of said venturi below a predetermined temperature.

19. A gas turbine engine in accordance with Claim 14 wherein said gap facilitates reducing coking of said venturi.

20. A gas turbine engine in accordance with Claim 14 wherein said at least one air swirler comprises a primary swirler and a secondary swirler, said venturi coupled between said primary and secondary swirlers.